

## Claims

What is claimed is:

1. A golf putting training device comprising:

a housing;

a target strike plate mounted to the front side of said housing which serves as a putting target and receives an impact of a rolling golf ball, wherein a layer of impact absorbing material is sandwiched between said housing and said target strike plate;

an impact detection sensor responsive to said impact of said rolling golf ball with said target strike plate;

circuitry for the amplification of said impact detection sensor signal and conversion to an impact sensor digital signal;

a doppler microwave speed measurement sensor responsive to movement of said rolling golf ball by providing a doppler audio output signal whose frequency is proportional to the speed of said rolling golf ball;

circuitry for the amplification of said doppler audio output signal and conversion of said doppler audio output signal to a doppler microwave speed measurement digital signal;

a green speed setting switch allowing selection of a stimp value in which to simulate, said green speed setting switch having a plurality of possible stimp settings for simulating a variety of green speeds;

a microcontroller to receive said doppler microwave speed measurement sensor digital signal, said impact sensor digital signal, and said green speed setting switch, wherein said microcontroller determines a rolling golf ball estimated speed in accordance with said doppler microwave speed measurement sensor digital signal,

wherein said microcontroller determines an estimated putting distance in accordance with said rolling golf ball estimated speed and said green speed setting switch value; and

means for communicating said estimated putting distance to a golfer.

2. The golf putting training device of claim 1 further including:

a microprocessor rolling progress output signal to indicate a simulated rolling progress of a simulated rolling golf ball as it would have traveled said estimated putting distance past said target strike plate; and

means for communicating said simulated rolling progress of said simulated rolling golf ball to a golfer;

whereby the golfer is provided with an accurate indication of the distance a putted golf ball would have traveled past a target strike plate on a simulated green having the selected stimp value green speed after impact with the target strike plate.

3. A golf putting training device comprising:

a housing;

a target strike plate mounted to the front side of said housing which serves as a putting target and receives an impact of a rolling golf ball, wherein a layer of impact absorbing material is sandwiched between said housing and said target strike plate;

an impact detection sensor responsive to said impact of said rolling golf ball with said target strike plate;

circuitry for the amplification of said impact detection sensor signal and conversion to an impact sensor digital signal;

a doppler microwave speed measurement sensor responsive to movement of said rolling golf ball by providing a doppler audio output signal whose frequency is proportional to the speed of said rolling golf ball;

circuitry for the amplification of said doppler audio output signal and conversion of said doppler audio output signal to a doppler microwave speed measurement digital signal;

a microcontroller to receive said doppler microwave speed measurement sensor digital signal and said impact sensor digital signal, said microcontroller determining a rolling golf ball estimated speed in accordance with said doppler microwave speed measurement sensor digital signal, wherein said microcontroller outputs said rolling golf ball estimated speed to a peripheral interface port;

whereby a peripheral computing device receives said rolling golf ball estimated speed, determines an estimated putting distance, and communicates said estimated putting distance to a golfer.